



# **TENNESSEE BUREAU OF INVESTIGATION**

## *Forensic Services Division*

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### Microanalysis Standard Operating Procedures Manual

### Obliterated Writing Analysis

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## **Obliterated Writing Analysis**

### **1. Scope**

The purpose of this examination is to determine any original writing on a document that may have been obliterated at one time.

### **2. Terms and Definitions**

Obliterate – to make undecipherable by wiping out or covering over.

Infrared – using radiation having wavelengths longer than those of red light.

Alternate light source - Devices providing monochromatic light at specific wavelengths are referred to as Alternate Light Source (ALS).

### **3. References**

Richard Saferstein Criminalistics 6<sup>th</sup> Edition Prentice Hall 1998 p. 510-513.

Barry A.J. Fisher Techniques of Crime Scene Investigation 4<sup>th</sup> Edition Elsevier 1987 p.103.

### **4. Examination Procedures**

#### *4.1. Evidence Types*

Any document that may have been altered.

#### *4.2. Reagents and Chemicals*

Solvents such as alcohol or acetone (ACS grade)

#### *4.3. Instruments and Equipment*

Stereomicroscope with side lighting  
Scalpel blade  
Photographic equipment with accessories  
Alternate light sources



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#### **4.4. Procedural and Chemical Precautions**

Refer to the TBI Safety Manual for general safety requirements and hazard information regarding the use of reagents and solvents and overall safety guidelines.

Hazardous chemicals must be used in a chemical fume hood.

When necessary, consult section and laboratory Material Safety Data Sheets (MSDS) regarding any chemical used in the Microanalysis section.

Label all generated solutions and reagents with appropriate warning stickers.

#### **4.5. Limitations**

Writing or markings on some items may have been thoroughly obliterated and will not be discernable. Examination is limited to microscopic techniques and the use of alternate light source.

#### **4.6. Procedure**

Document submitted samples according to *Microanalysis Quality Assurance Policy*.

4.6.1. Using a stereomicroscope and side lighting, observe document and determine if the original writing can be distinguished.

4.6.2. Photograph document and use any or all of the techniques below.

4.6.3. In some cases, the original writing can be discerned by using intense lighting or alternate light sources at different angles.

4.6.4. In cases where corrective fluid is used, it may be possible to scrape off the dried corrective fluid with a scalpel blade.

4.6.5. In cases where the writing has been obliterated with ink or paint, a small corner of the item may be swabbed with a solvent such as alcohol or acetone to remove the substance and reveal the original information. If this doesn't damage the concealed writing, the whole area can be swabbed.



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#### **5. Measurement Traceability**

The are no measurements associated with this examination.

#### **6. Reports**

The following are possible results concluded from the examination:

Analysis of the submitted item revealed the following under the (describe here how the area that is obliterated)

Report exactly as the area obliterated reads leaving a “\_” in areas that cannot be determined.

Determination of the original writing on the submitted document was not possible.